

Figure 1 (Prior Art)

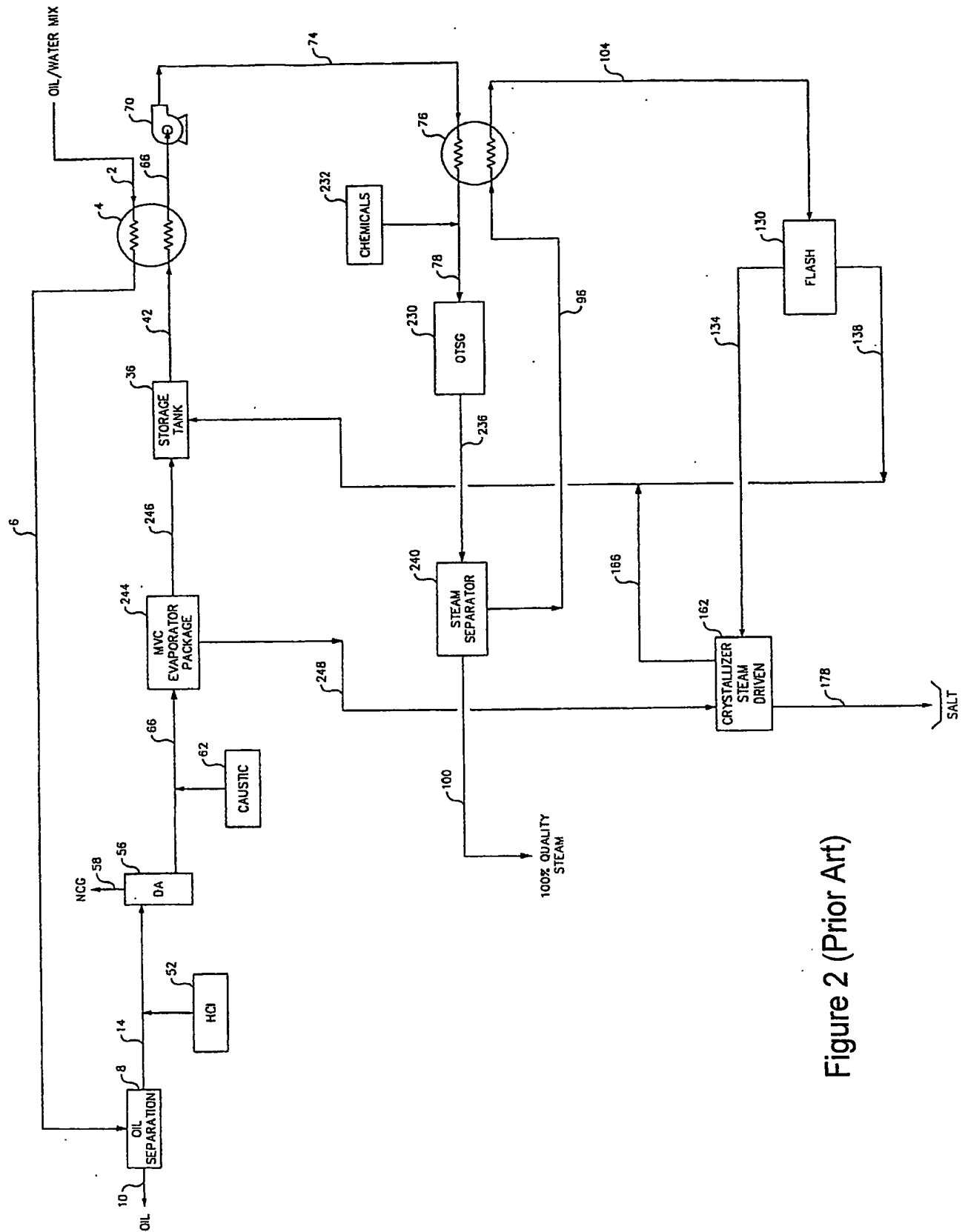


Figure 2 (Prior Art)

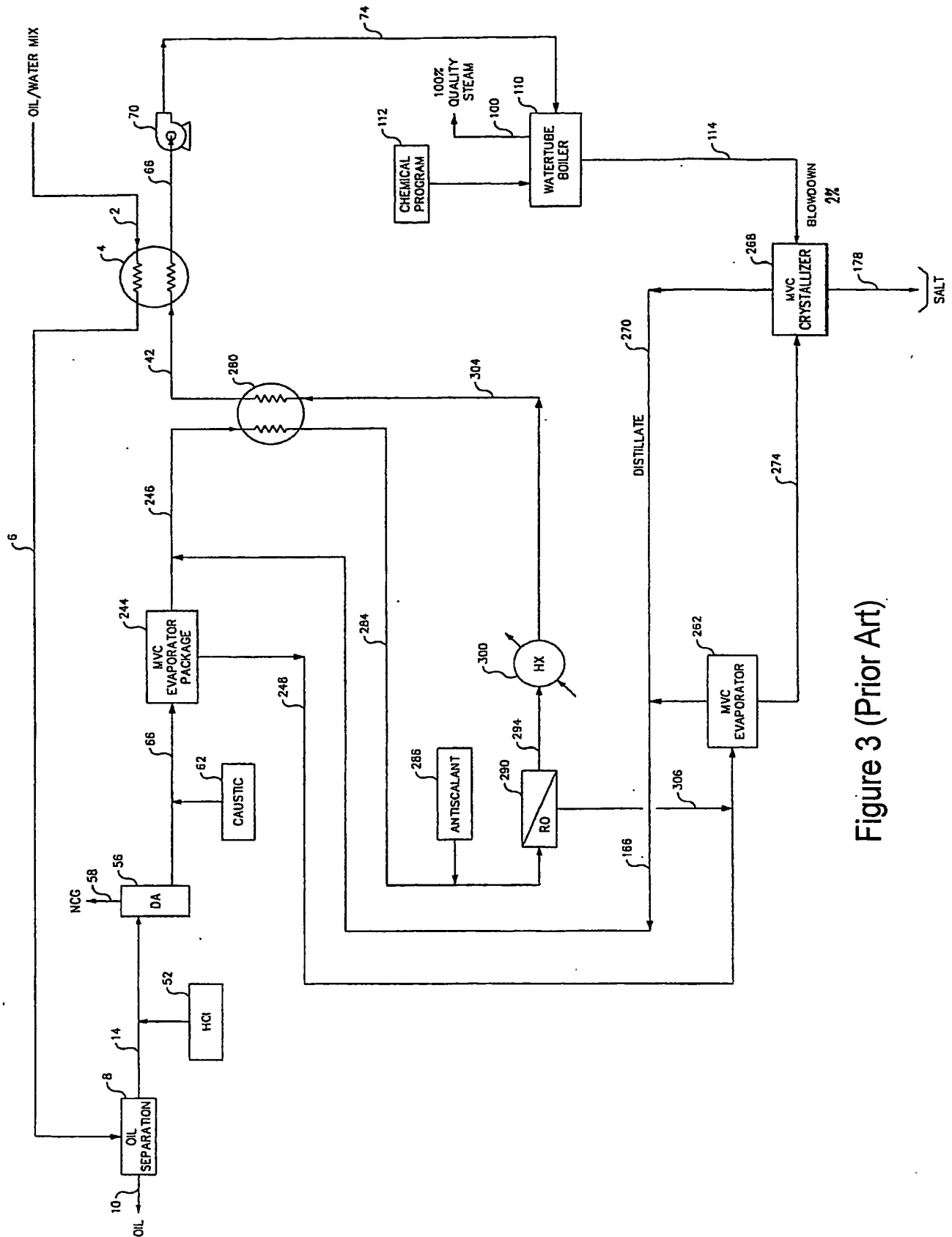


Figure 3 (Prior Art)

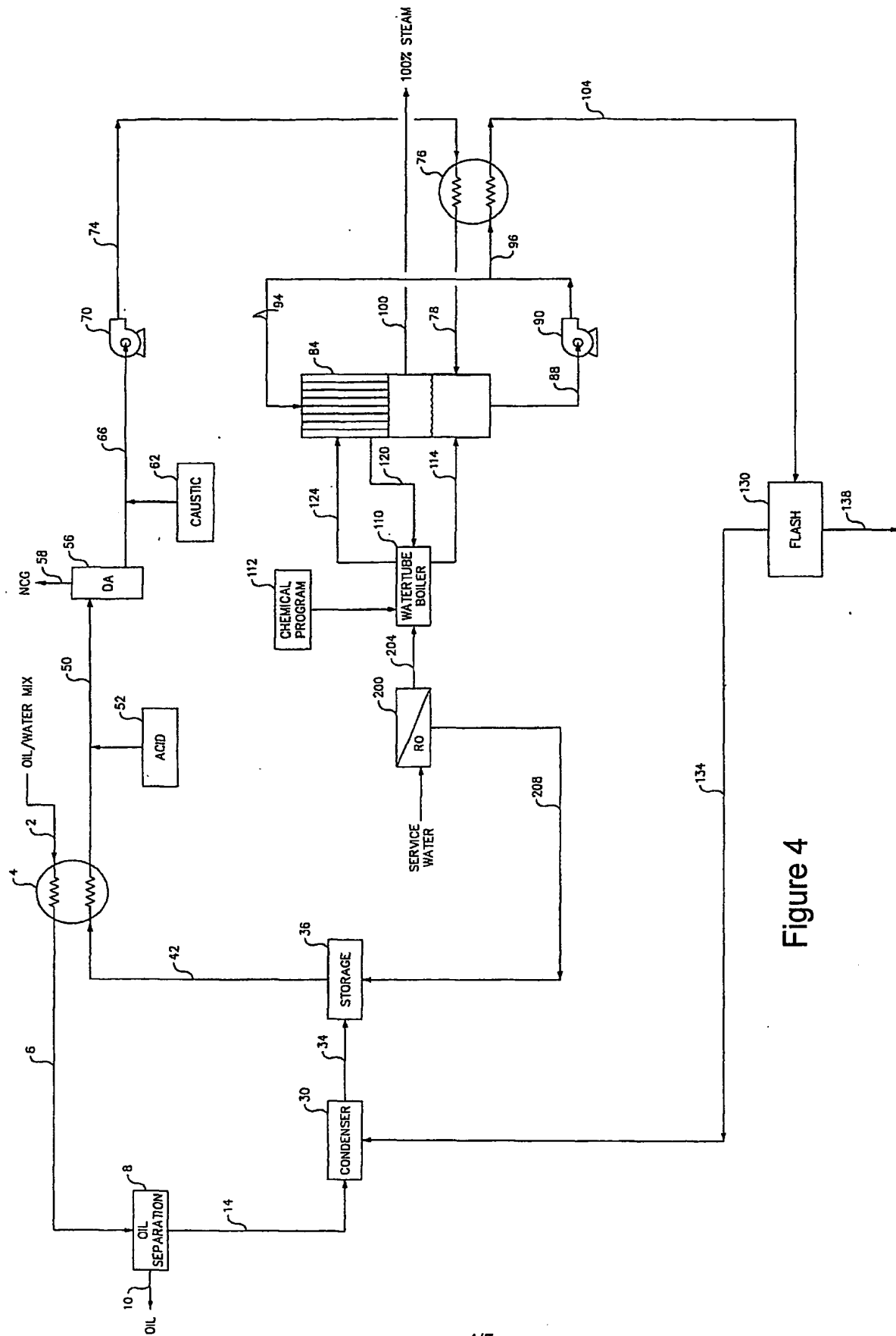


Figure 4

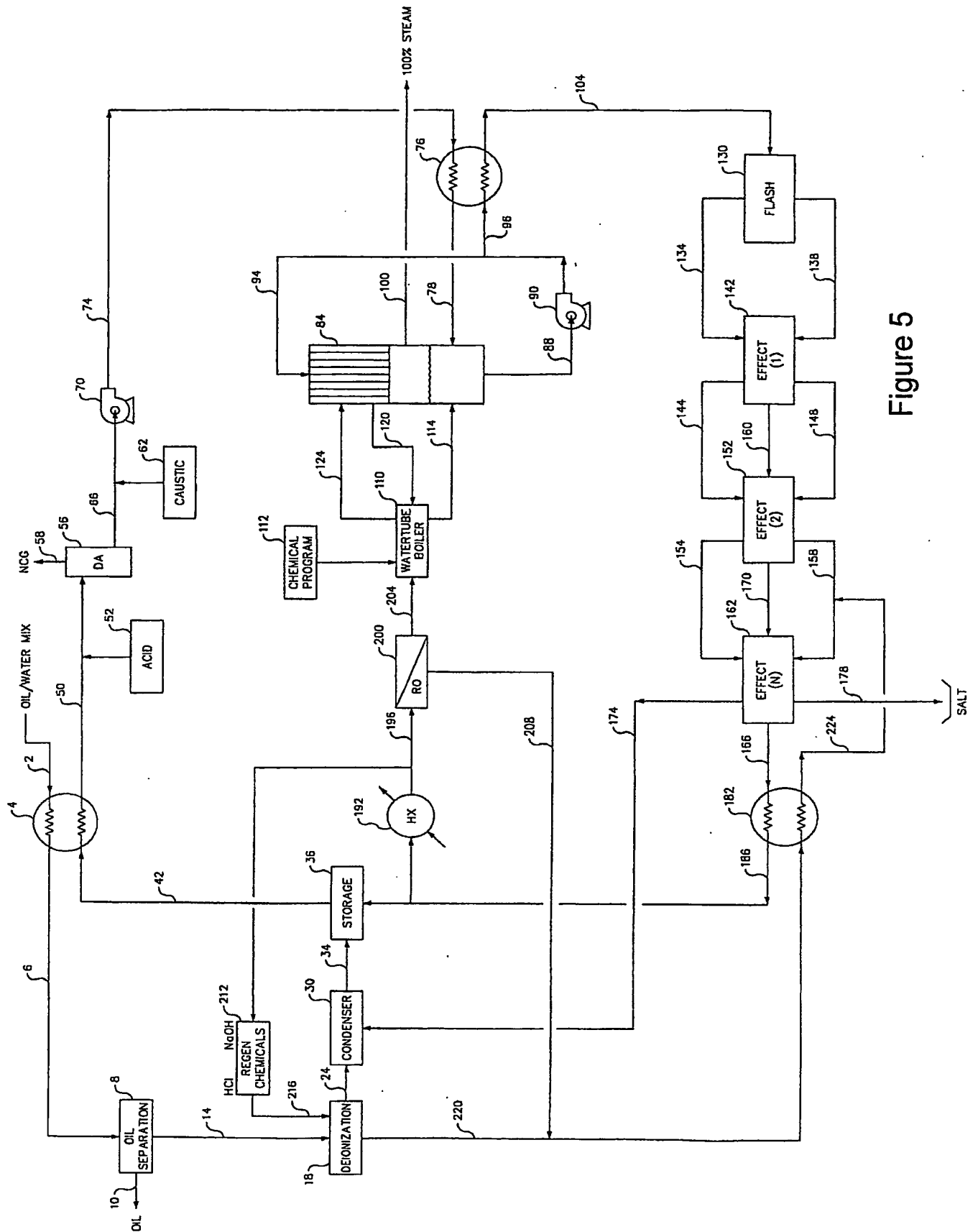


Figure 5

Figure 6

**TYPICAL ONCE THROUGH STEAM GENERATOR
FEEDWATER REQUIREMENTS**

| | |
|----------------------------------|---------------------------------------|
| | |
| Chlorides | <1000 mg/l |
| Hardness (as CaCO ₃) | <0.5 mg/l normal <1.0 mg/l maximum |
| Oil and Grease | <0.5 mg/l normal <1.0 mg/l maximum |
| TDS | <2500 mg/l |
| Silica (as SiO ₂) | <80 mg/l |
| TSS | <1.0 mg/l |
| Iron (as Fe) | <0.1 mg/l |
| pH | 9.0 – 10.0 |
| H ₂ S | <0.1 mg/l |
| Oxygen | Zero |

Figure 7

**TYPICAL 1000 PSIG WATERTUBE BOILER
ASME FEED and BOILER WATER REQUIREMENTS**

| | |
|----------------------------------|------------|
| Feedwater | |
| Hardness (as CaCO ₃) | <0.05 mg/l |
| Non-Volatile TOC (as C) | <0.20 mg/l |
| Oil and Grease | <0.20 mg/l |
| Copper (as Cu) | <0.01 mg/l |
| pH | 8.8 – 9.6 |
| | |
| Boiler Water | |
| Silica (as SiO ₂) | <6 mg/l |

Ionization of Silica

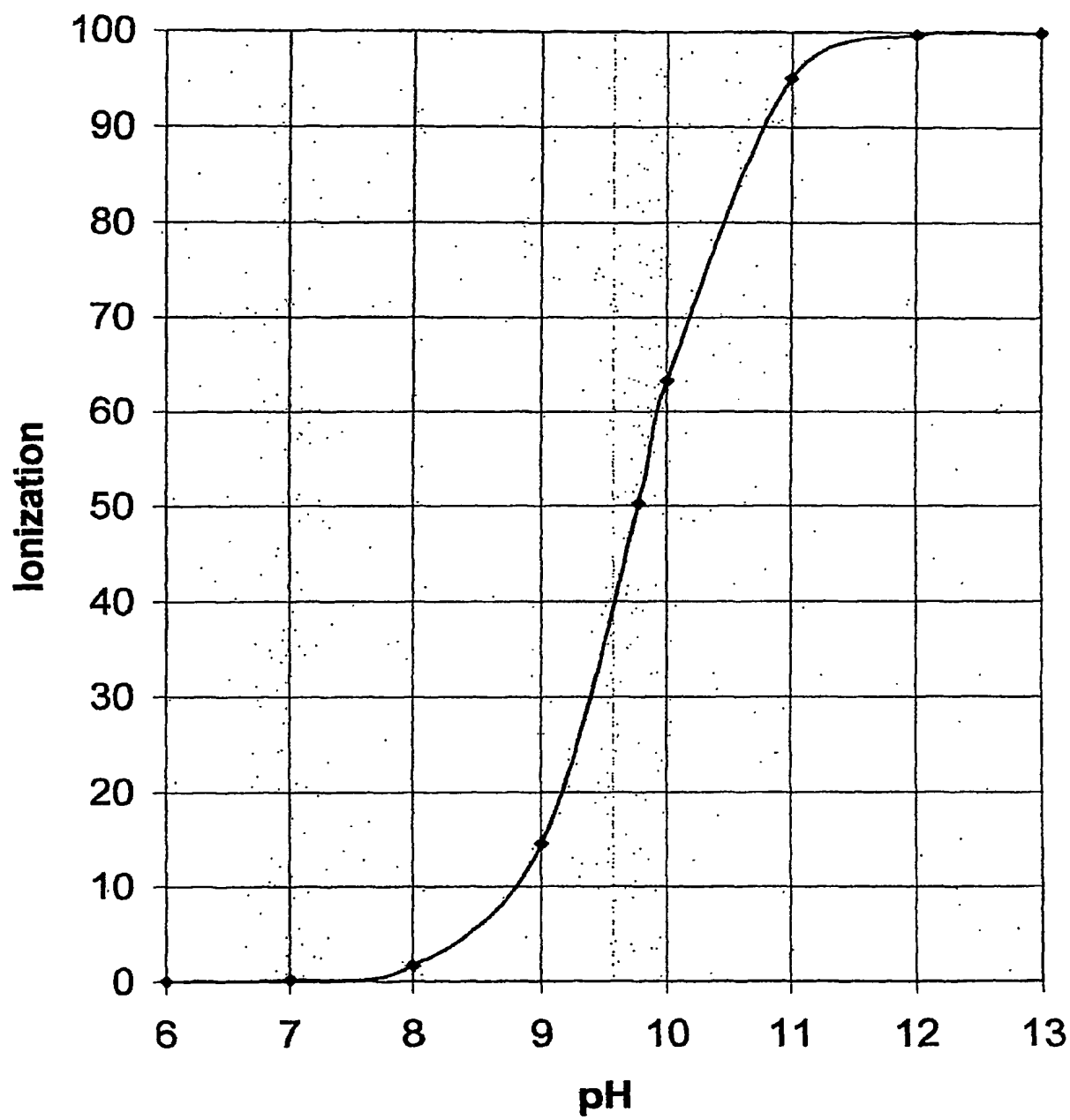


Figure 8